<u>In the Claims</u>

Please amend the claims as follows:

1.   (Currently Amended) A <u>method of storing data in an address trace cache in the environment of</u> branch prediction ~~method using a trace cache~~ comprising the steps of:

if a routine composed of ~~unrepeated~~ instruction<u>s</u> is to be executed, storing an address corresponding to each instruction in the <u>address</u> trace cache according to an order of executed instructions; ~~and~~

if a routine composed of repeated instructions is to be <u>repeatedly</u> executed, storing a routine start address, a routine end address, <u>a</u> current ~~access times~~ <u>iteration count</u> of the routine, and <u>a</u> total ~~access times~~ <u>number of iterations</u> of the routine<u>;</u>

<u>providing the trace cache with a current iteration loop counter for counting the current iteration count when the routine of repeated instructions is executed and a total iteration loop counter for counting the total number of iterations of the routine of repeated instructions; and</u>

<u>addressing a start address which will be accessed subsequent to execution of the routine if the current iteration count and the total number of iterations are identical.</u>

2.   Canceled

3.   Canceled

4.   Canceled

Application Number 09/714,325
Amendment dated February 24, 2004
Reply to Office Action of November 5, 2003

Amendments to the Drawings:

The attached sheets of drawings include changes to Figures 1, 2A, 2B and 3, and include new sheets of drawings labeled Figures 7-9. The sheets that include Figures 1, 2A, 2B and 3 replace their respective original sheets of figures filed with the application. In Figures 1, 2A, 2B and 3, the legend "Prior Art" has been added. Figures 7-9 are new figures which should be added to the application in accordance with the Examiner's request.

Attachment: Replacement Sheets

Annotated Sheets Showing Changes